Public Comments and Responses on the Draft EE/CA

Public meetings were held in Stehekin, WA on July 22nd, 2014 and in Newhalem, WA on July 24th, 2014. The following general questions or comments on the EE/CA and Administrative Record were provided verbally at these two meetings.

1. **Comment (Stehekin):** What are the potential pathways that lead bullets in the soil could negatively impact a person or wildlife?
   Response: Lead is a potent neurotoxin with no safe exposure level for humans. The primary human exposure routes for lead at outdoor ranges are inhalation of lead dust during the firing of a gun and ingestion by direct contact with lead or lead particles. Lead particles can collect on the hands after handling or discharging lead ammunition, and these particles can be ingested if an individual eats or smokes prior to washing his or her hands. At high concentrations, lead is dangerous to people of all ages, but at even very low concentrations, lead is dangerous to infants and young children, damaging the developing brain and resulting in both learning and behavioral problems.

   Birds and mammals can experience deleterious health conditions from ingesting lead shot, bullet fragments, or prey contaminated with lead ammunition or fragments. Primary poisoning occurs when an animal consumes ammunition directly, mistaking it for food or ingesting it accidentally during feeding. Secondary poisoning occurs when animals consume wounded or dead prey or scavenge gut piles from animals that have been exposed to or killed by lead.

   Spent lead ammunition may remain intact for decades, but once lead ammunition starts to degrade, it releases particulate compounds that may contaminate soil, surface water, and groundwater. Lead deposited in the soil can be transferred into the leaves, stems, and roots of plant species through this process. Lead can also contaminate small mammals and other organisms (e.g. mice, voles, shrews, and frogs) in the vicinity of sites where bullets are left in the environment in substantial numbers. Lead bullets or bullet particles will dissolve when exposed to acidic water or soil, causing the lead to weather into oxides, carbonates, and other soluble compounds. Soils in Stehekin are known to be acidic (pH vales range from 5-6, with the upper soil horizons typically being more acidic than deeper horizons), although adjacent surface water and ground water were not sampled or tested to determine the concentration of dissolved lead or the extent of contaminant mobility in vicinity of the firing ranges.

2. **Comment (Newhalem):** Spent lead ammunition has market value. Why didn't the park consider an alternative including lead bullet recovery by sieving the soil and leaving the soil onsite following lead recovery?

Response: Intact bullets and large bullet fragments were not included in analysis of the soil samples collected from Stehekin and Newhalem. The analytical procedure used to analyze the soil samples at Stehekin and Newhalem involved sieving the samples to remove all particles larger than two millimeters prior to analysis. Thus, sieving of soils to recover spent ammunition would not change the soil lead concentrations measured at the two sites and the removal action objective of minimizing the potential for lead impacts to human health and the environment would not be achieved.

Furthermore, once firing range soils are processed to remove bullets, the screened soils are classified as solid waste by Resource Conservation and Recovery Act (RCRA) regulations. Because the processed soil is classified as "solid waste", returning the soil to the site would then constitute creation of a "solid waste disposal site" subject to the requirements of 36 CFR Part 6 Solid Waste Disposal Sites in Units of the National Park System. 36 CFR Part 6 prohibits the creation of new solid waste disposal sites within the boundaries of the park unit unless an extensive set of specific criteria are met. Both Stehekin and Newhalem sites fail to meet several of the criteria required for an exemption to this prohibition.

3. **Comment (Stehekin & Newhalem):** If you close the firing range(s), people will shoot in unregulated areas of the Lake Chelan or Ross Lake National Recreation Area (NRA) or surrounding Forest Service land because there are no local alternatives, and this could create different problems (e.g. safety of the public, dispersed lead contamination, etc.).
Response: Regulations containing a general prohibition on the discharge of firearms within national park units (36 CFR Part 2.4) were established "to ensure public safety and provide maximum protection of natural resources by limiting the opportunity for unauthorized use of weapons," and NPS law enforcement personnel will continue to enforce these regulations. The Enabling Legislation for Ross Lake and Lake Chelan National Recreation Areas does permit hunting on lands and waters within the recreation areas in accordance with applicable laws of the United States and the State of Washington, where the Department of Fish and Wildlife manages hunting regulations and seasons. Federal and State law enforcement personnel coordinate on enforcement of these laws and regulations to protect public safety and conserve natural resources.

   In an effort to limit dispersal of lead contamination to the environment, the 2011 Ross Lake NRA General Management Plan called for a prohibition on lead-based ammunition within the Ross Lake NRA boundary. Other entities have petitioned for a federal rulemaking that would require the use of nontoxic ammunition on lands owned, managed, or otherwise controlled by the National Park Service. While no regulations currently limit the use of lead ammunition within the NRAs, the NPS would support implementation and enforcement of such regulations to limit environmental lead contamination and associated impacts to the environment.

4. **Comment (Newhalem):** The park has done a poor job of communicating that the Newhalem firing range is closed to public use. How is that going to be enforced?
   Response: The NPS is using this public comment period to better communicate last year's closure to the public, which was documented in the July 2013 update to the *Superintendent's Compendium Of Designations, Closures, Permit Requirements and Other Restrictions Imposed Under Discretionary Authority*. The NPS will update and improve signage at the range, and education will be used before ticketing as part of enforcing this regulatory provision.

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